

**REMARKS**

The Examiner's comments together with the cited references have been carefully studied. Favorable reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

Claims 1, 3-4, and 7-10 are pending in the application. Claim 1 herewith is amended. Claims presently active are claims 1 (as amended), 3-4, and 7-10.

Claims 1, 3-4, and 7-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kimoto et al. in view of Nomura et al., Valyi, and Gardner. The rejection is traversed. It is the conclusion of the Examiner that "It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Kimoto as such to have made the mold from cast-epoxy and thermosetting material because it would be easy to construct the mold from these materials as suggested by Nomura." The Examiner further concludes, "It also would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Kimoto as such to have used a threaded screw arrangement to support the spring bias because this is a suitable arrangement for the construction of a relief valve as taught by Valyi and further because this would allow for adjustment of the spring bias acting on the valve."

Applicants take the position that claim 1 (now thrice amended) is not taught or suggested by cited combination of Kimoto et al. in view of Nomura et al., Valyi, and Gardner. Applicants respectfully concur with the Examiner that Kimoto has several shortcomings for solving the problem faced by Applicants, particularly their failure to teach Applicants' pressure relief valve and its operations. Moreover, nowhere is it taught in the secondary references, particularly Valyi, because Valyi teaches a plunger (23) that seats against a mold cavity (12) and retracts from the mold cavity (12) when there is a change in molding pressure. There is no teaching, except hindsight reconstruction based primarily on Applicants' invention, to arrange a pressure release valve, as recited in Applicants' claimed invention, in a first molten resin flow path in a nonmetallic mold and that retracts from the first molten resin flow path to expose molten material to a second flow path specially to

accommodate a different molten material which may produce a higher molding pressure.

In view thereof, it follows that the subject matter of the claims would not have been obvious of over Kimoto et al. in view of Nomura et al., Valyi, and Gardner at the time the invention was made.

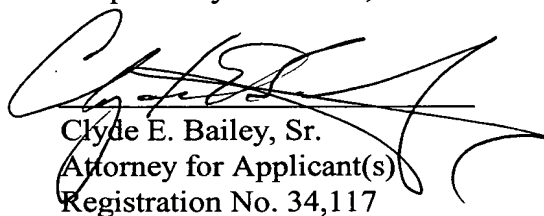
Applicants have reviewed the prior art made of record, including Kimoto et al., Nomura et al., Valyi, and Gardner and believe that singly or in any suitable combination, they do not render Applicants' claimed invention unpatentable.

In view of the foregoing remarks and amendment, the claims 1 (as amended), 3-4, and 7 -10 are now deemed allowable and such favorable action is courteously solicited.

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page(s) is captioned "**Version With Markings To Show Changes Made.**"

Respectfully submitted,



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Enclosures: Version With Markings To Show Changes Made (page 4-5)

**Version With Markings To Show Changes Made**

**In the Claims:**

Claim 1 has been amended as set forth below:

1. (Thrice Amended) An injection molding apparatus for making a molded part, comprising:

an injection molding machine for injecting molten resin, said injection molding machine including a screw cylinder having a tip, a nozzle at said tip and a threaded screw advanceable in said screw cylinder for injecting molten resin from said nozzle, said injection molding machine further having structurally associated therewith a stationary portion and a movable mold portion forming a mold parting line therebetween;

a non-metallic injection mold comprising a stationary cavity mold and a movable core mold [forming a hollow] having a first molten resin flow path therebetween, said movable core mold having a pair of ejector pins arranged therein for forceably separating said movable core mold from said first molten resin flow path [for forming an injection molded product therein, said stationary cavity mold being accessible by said stationary portion and said movable mold portion];

[a first molten resin flow path extending from inside said screw cylinder to a terminal end of said hollow; and,]

a second molten resin flow path arranged proximate to said movable core mold, said second molten resin flow path being accessible to said first molten resin flow path by operation of an adjustable pressure valve arranged for alternately blocking and unblocking molten resin flow between said first molten resin flow path and said second molten resin flow path [an adjustable pressure relief valve] to accommodate a change in molding cavity pressure associated with a change in molten resin material [and a corresponding change in molding cavity pressure] introduced into said injection molding machine, said adjustable pressure relief valve being located on said mold parting line proximate [in an engaged state relative] to said first molten resin flow path and said second molten resin flow path, wherein said adjustable pressure relief valve being disposed to retain molten material in said first molten resin flow path when the molding cavity pressure is less than a predetermined

level and, to release molten resin material from said first molten resin flow path into said second molten resin flow path when molding cavity pressure exceeds said predetermined valve [at said terminal end of said hollow and adapted to release said molten resin from said first molten resin flow path into a second molten resin flow path when pressure of said molten resin in said first molten resin flow path exceeds a predetermined value and causes said molded part to be released from said cavity mold while said pressure relief value is in a retracted state].